

DUAL SLOPE DUAL RANGE OSCILLATOR

ABSTRACT OF THE DISCLOSURE

A dual range oscillator provides two different ranges of oscillator frequency output based on switched current sources charging a capacitor. As several current sources are combined to charge capacitor, the interval for charging the capacitor decreases and changes the oscillator frequency output accordingly. A reference voltage supplied to a comparator checks the voltage on the capacitor to determine when to combine current sources to charge the capacitor and modify the timing interval and the corresponding oscillator frequency output. The different current sources are switched to the capacitor to provide modified charging slopes. The dual slope, dual range oscillator permits frequency switching operation in a variety of environments and applications with a simplified control and integration into a single chip.